

**AN INVENTORY OF
MAN-MADE LAND
ALONG THE INDIANA SHORELINE OF
LAKE MICHIGAN**

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Prepared by:

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TABLE OF CONTENTS

Introduction	1
Amoco Oil Company.	5
Bethlehem Steel Corporation.	6
City of Hammond/Department of Waterworks	7
City of Whiting/Department of Parks and Recreation	8
Commonwealth Edison of Indiana, Inc.	9
Indiana Port Commission.	10
Inland Steel Company	11
Midwest Steel Division of National Steel Corporation	13
Northern Indiana Public Service Company.	14
C.C. Shedd et al Trustees.	16
United States Steel Corporation.	17
Youngstown Sheet and Tube Company.	19

Between the years 1824 to 1849, the Surveyor General of the United States conducted a survey of Indiana's Lake Michigan shoreline. In the ensuing years until the turn of the century, the shoreline was altered significantly by the reclamation of approximately 700 acres of submerged land. These submerged lands were filled either by men creating valuable lake frontage or as a result of natural accretion.

At the beginning of the twentieth century, when industry began to expand around the southern end of Lake Michigan, land with the potential for industrial development was in great demand. In order to supply this demand, substantial encroachments into the lake were planned by several companies seeking to expand their facilities lakeward. In anticipation of industrial reclamation of Lake Michigan, a joint resolution of Congress, in 1906, required permits from the federal government prior to reclamation of submerged lands by the riparian owners. The resolution required the Secretary and Chief of Engineers of the Department of War to approve the planned man-made lands prior to the filling of Lake Michigan.

The riparian owners along Lake Michigan were given the right to fill in submerged land adjacent to and within the width of their shoreline property in 1907 through I.C. 4-18-13. The legislation stipulated that the man-made fills could not extend lakeward of the dock and harbor line as established by the U.S. Army Corps of Engineers and that accurate surveys

of the proposed fills be made by the county surveyor. Upon filing of the plat of survey with the secretary of state, "the governor shall issue to such owner or owners authority to fill in and improve such land." When the filling was completed and accurately surveyed, and upon payment of certain fees, the governor was required to issue a patent for the man-made land.

Over the years, the reclamation of submerged lands along the Indiana shoreline proceeded at a rapid and steady pace. Realizing that the original Lake Michigan shoreline was vanishing, the Indiana Department of Conservation Commission resolved in 1961 that, "in principle it (the Commission) did not favor further encroachment by filling in upon the waters and shores of the portions of Lake Michigan situated within the boundaries of the state."

Recognizing that the shoreline of Lake Michigan was indeed a natural resource to be conserved and protected, the Indiana legislature amended I.C. 4-18-13 to read: "the natural resources commission with the approval of the governor of the state may issue to such owner or owners authority to fill in and improve such land." This 1973 amendment to the man-made land authorization act significantly changed the state's permit issuance responsibility from the previous mandatory shall to a discretionary may.

Due to the absence of a consistent system of record keeping between 1907 and 1978, a complete record of man-made fills in Lake Michigan was not, until this time, available in any one state office.

This inventory of man-made lands was undertaken in an effort to compile a complete record of authority to fill permits and patents. Whenever possible, an attempt was also made to obtain or locate the plats of survey which accompany the filing of such documents. The Department of Natural Resources, Secretary of State, State Auditor, Lake County Surveyor, Lake County Auditor, the Lake County Recorder's offices and the archives of the Indiana State Library provided much of the information on man-made fills in Indiana. In addition,

the permit and patent holders of these man-made lands provided a substantial number of records.

Currently there are ten permit holders along the Indiana shoreline. However, several of these represent the survivors of companies which have undergone name change, merger or dissolution. Many of these nonsurvivors were issued permits and patents now recorded under the present owners of that riparian property.

Since the 1907 legislation, approximately 6,515 acres of man-made lands have been authorized as indicated in Table 1. Of the authorized fills, patents have been located for 3604.436 acres. Patents for 84.469 acres were not located although the land has been filled since 1957. Therefore, of the original authorization for man-made fills approximately 2,827 acres remain to be filled and/or patented.

Table 1. Man-made land along the Indiana shoreline of Lake Michigan

Authority to Fill	Patented	Remaining to Patent
6515.783 acres	3688.905 ¹ acres	2826.878 acres

¹Patents for 84.469 acres have not been located, although the land has been filled since 1957.

Two man-made fills were completed without an authority to fill permit and subsequently are not represented in the total authority to fill acreage. The Indiana Port Commission, charged by the legislature with the construction of Burns Waterway Harbor, was exempted from obtaining a state authorization for a man-made fill. The Port includes approximately 95 acres of Lake Michigan, however, only 86 acres have been filled. The City of Whiting/Department of Parks and Recreation completed approximately one acre of man-made fill under a War Department permit but never applied for or received a state permit. Because no authorization to fill was granted to the Indiana Port Commission

or the City of Whiting, these man-made lands are not patented.

Patented acreage presented in Table 1 corresponds with patent documents in the Department of Natural Resource's files. Throughout the report, acreages recorded have been derived from official permit or patent documents. The exceptions to this are the man-made lands previous to 1907 and land filled under the Gary Tube Company permit. These were measured planimetrically.

The inventory of man-made lands in Lake Michigan within Indiana is presented in the following tables. Each table represents one surviving man-made fill permit holder. The permits and patents of the nonsurviving permit holders are listed under the name of the current permit holder. Each of the ten permit holders is assigned a "map reference" which locates the permit holders on the map of the Lake Michigan shoreline. The areal extent of the authority to fill boundaries and the subsequent patented lands are presented in the maps. In addition, filled but unpatented lands are shown as determined from aerial photographs flown in 1975 and 1978. Lands made previous to 1907 are located between the shoreline of 1824 - 1849 and the first boundary line for authority to fill permits.

TABLE 2: AMOCO OIL COMPANY

Map Reference	Acreage of Authority To Fill	Date of Authority To Fill	Acreage Patented	Acreage Remaining To Patent
A 1	12.68 ¹	12/28/60	9.234	3.446
A 2	2.413 ² 0.028	7/12/61	2.413 0.028	0
Total	15.121		11.675	3.446

¹The Permit was originally issued for 12.708 acres on 8/27/57. The corrected acreage of 12.68 was authorized and issued as an amended permit.

²The permit was originally issued for 2.15 and 0.02 acres on 7/24/46. This acreage was later corrected to 2.413 and 0.028 acres and authorized under a revised permit issued on 5/4/51. This permit was amended and the acreage re-authorized under the 1961 permit.

Land made between 1824 and 1907 as a result of natural accretion or man-made fills amounts to approximately 14 acres at this site.

TABLE 3: BETHLEHEM STEEL CORPORATION

Map Reference	Acreage of Authority To Fill	Date of Authority To Fill	Acreage Patented	Acreage Remaining To Patent
B ₁	332.210 ¹	7/27/65	182.735	150.801
B ₂	1.326 ²	6/29/66	-	-
Total	333.536		182.735	150.801

¹The acreage authorized under the permit of 1965 was limited by a Department of the Army authorization issued on 10/26/66. This federal permit authorized only 300.48 acres to be filled at that site.

²The 1966 permit has been partially filled and patented under a patent for 132.142 acres, dated 1/27/70, issued under authorization of the 1965 permit.

Land made between 1824 and 1907 as a result of natural accretion or man-made fills amounts to approximately 14 acres at this site.

TABLE 4: CITY OF HAMMOND/DEPARTMENT OF WATER WORKS

Map Reference	Acreage of Authority To Fill	Date of Authority To Fill	Acreage Patented	Acreage Remaining To Patent
H ₁	4.257	1/14/34	3.281	0.976
H ₂	5.566 ⁷	6/23/78	0	5.566
Total	9.823		3.281	6.542

⁷Plats illustrating the 1978 permit depict an area to the southwest of the fill site that cannot be accounted for. To date, no patents have been found for this particular filled area, which included approximately 0.9 acres of man-made land (See plat copy 1 in file "City of Hammond Authority to Fill 5.566 acres 6/23/78").

There is no land at this site made between 1824 and 1907 as a result of natural accretion or man-made fills.

TABLE 5: CITY OF WHITING/DEPARTMENT OF PARKS AND RECREATION

Map Reference	Acreage of Unauthorized Proposed Fill	Acreage of Fill
W	3 acres ⁷ Per a War Department Permit issued 12/14/39	1

⁷The City of Whiting/Department of Parks and Recreation has never applied for or received an authority to fill from the State of Indiana for man-made lands constructed adjacent to their shoreline property. The above acreage was authorized only through a federal permit, and subsequently is not patented.

Land made between 1824 and 1907 as a result of natural accretion or man-made fills amounts to approximately 11 acres at this site.

TABLE 6: COMMONWEALTH EDISON OF INDIANA, INC.

Map Reference	Acreage of Authority To Fill	Issued To ⁷	Date of Authority To Fill	Acreage Patented	Acreage Remaining To Patent
C ₁	75.53	State Line Generating Co.	3/31/25	72.811	2.719
C ₂	0.62	Chicago District Electric Generating Corp.	5/10/46	0	0.62
C ₃	79.201	Commonwealth Edison of Indiana Inc.	7/8/57	0	79.201
Total	155.351			72.811	82.54

⁷These are companies which, through name change, merger or dissolution, were predecessors of Commonwealth Edison. Therefore, the properties listed herein are under its ownership.

Land made between 1824 and 1907 as a result of natural accretion or man-made fills amounts to approximately 10 acres.

TABLE 7: INDIANA PORT COMMISSION

Map Reference	Exempted From Fill Permit	Acreage Filled
P	95 acres (as measured from plat of survey) ¹	86

¹Burns Waterway Harbor was constructed under an authorization by act of Congress and because of this was not issued a permit to fill per se. In 1966, the Attorney General of Indiana concurred that such a permit was not provided for among the restrictions and limitations on the duties and powers of the Indiana Port Commission. (See Letter 1 in file "Indiana Port Commission").

There is no land at this site made between 1824 and 1907 as a result of natural accretion or man-made fills.

TABLE 8: INLAND STEEL COMPANY

Map Reference	Acreage of Authority To Fill	Date of Authority To Fill	Acreage Patented	Acreage Remaining To Patent
I ₁	181.861 ⁷	04/29/08	181.861	0
I ₂	50.273	12/09/29	50.273	0
I ₃	303.780	08/12/32	303.709	0.071
I ₄	228.99 ²	01/25/50	217.853	12.382
I ₅	2.446	06/12/51	1.977	0.469
I ₆	563.47 ³	09/20/54	550.03	13.44
I ₇	20.69	02/28/57	20.706	-0.016
I ₈	1.245 ⁴	11/09/59	-	-
I ₉	779.818 ⁵	04/23/62	172.577	607.241
I ₁₀	18.38	10/04/66	15.920	2.46
Total	2150.953		1514.906	636.047

⁷The original 1908 permit never specified acreage for the proposed fill, but took as its boundaries dock and harbor lines established by the Secretary of War. Plats show the acreage behind these lines to the shoreline to be 144.95 acres. In 1916, the dock and harbor lines were altered, resulting in an increase in fill area. Although a state permit is lacking for this additional acreage, approximately 37 acres, the original permit was interpreted at the time as flexible enough to cover the new area. Several references have since been made to the effect that this permit authorized 222.012 acres to be filled. Plats illustrating the permit area and patents within show only 181.861 acres of patented fill, which began at the shoreline of 1908 and extended to the dock and harbor lines.

²The 1950 permit is referred to as the Northwest Extension.

³This permit, referred to as the Northeast or Eastward Expansion, was issued as three parcels: Parcel 1 and 2 contained 533.12 and 10.353 acres respectively and were to remain under Inland's ownership. Parcel 3 was described as an irregular area of approximately 20 acres to be located within a 54 acre tract, and was to be quitclaimed to the City of East Chicago as a municipal park. To date, 23.397 acres (1958 patents: 23.023 and 0.094, and 0.28 acres) have been patented for Parcel 3, indicating some discrepancy between the original permit for 20 acres in that parcel and the actual patented acreage.

⁴The 1959 permit supplemented the 1950 permit for 228.99 acres. It is included under Parcel 2 of the patent for 47.807 & 1.569 acres, dated 7/8/63.

⁵The 1962 permit is referred to as the 4000 foot extension.

Land made between 1824 and 1907 as a result of natural accretion or man-made fills amounts to approximately 94 acres at this site.

TABLE 9: MIDWEST STEEL Division of NATIONAL STEEL CORPORATION

Map Reference	Acreage of Authority To Fill	Date of Authority To Fill	Acreage Patented	Acreage Remaining To Patent
M ₁	225.20	2/4/60	0	225.20

Land made between 1824 and 1907 as a result of natural accretion or man-made fills amounts to approximately 16 acres.

TABLE 10: NORTHERN INDIANA PUBLIC SERVICE COMPANY

Map Reference	Acreage of Authority To Fill	Site of Authorized Fill	Date of Authority To Fill	Acreage Patented	Acreage Remaining To Patent
N ₁	35.3946	Michigan City	9/14/53	35.3946	0
N ₂	30.304 ¹ 0.502 2.934	Dean H. Mitchell Station	2/17/56	30.304 0.502	2.934
N ₃	95.85	Bailly Site	12/30/60	0	95.85
N ₄	6.231 ² 3.184	Dean H. Mitchell Station	6/15/72	0	6.231 3.184
Total	174.3996			66.2006	108.199

¹This permit was the result of a transaction between Universal Atlas Cement Company, a predecessor of U.S. Steel, and NIPSCO. A 100-acre tract was purchased by NIPSCO from Universal Atlas on 8/18/54. This tract had been submerged land originally included under an authorization to fill dated 2/8/26 and issued to Universal Portland Cement. Within the tract, 66.26 acres had already been filled and patented by Universal Atlas but there remained three areas left to fill: Parcel B-Part 1 for 30.304 acres, Parcel A-Part 1 for 0.502 acres and Parcel B-Part 2 for 2.934 acres. The authority to fill these parcels was given by the State of Indiana to NIPSCO, which is the owner of the enclosing tract.

²This permit was the result of a transaction between United States Steel Corporation and NIPSCO. A 28.762 acre tract was purchased by NIPSCO from U.S. Steel on 2/22/65. This tract had originally been included in a larger area of submerged land which was authorized for filling by Carnegie-Illinois Steel Corporation under an authority to fill issued by the state on 10/16/39. (Carnegie-Illinois was later merged into U.S. Steel). Within the tract, 19.347 acres had already been filled and patented by Carnegie-Illinois but there remained two areas left to fill: Parcel K-Part 3 for 6.231 acres and Parcel K-Part 4 for 3.184 acres. The authority to fill these parcels was given by the State of Indiana to NIPSCO, which is the owner of the enclosing tract.

Land made between 1824 and 1907 as a result of natural accretion or man-made fills amounts to approximately 2 acres at Michigan City, 23 acres at the Dean H. Mitchell Station and 5 acres at the Bailly Site.

TABLE 11: C.C. SHEDD ET AL TRUSTEES

Map Reference	Acreage of Authority To Fill	Date of Authority To Fill	Acreage Patented	Acreage Remaining To Patent
S ₁	51.333 ¹	10/2/41	0	51.333
S ₂	340.523 ¹	11/26/41	0	340.856
Total	391.856		0	391.856

¹ Both of the permits were assigned to Northern Indiana Public Service Company through separate documents dated 10/8/62. These were titled "Assignments of the Governor's Permit and Quitclaim" and were transacted solely between trustees of the Shedd interests and Northern Indiana Public Service Company.

Land made between 1824 and 1907 as a result of natural accretion or man-made fills amounts to approximately 16 acres.

TABLE 12: UNITED STATES STEEL CORPORATION

Map Reference	Acreage of Authority To Fill	Issued To ¹	Date of Authority To Fill	Acreage ² Transferred	Transferred To	Acreage Patented	Acreage of Patent Status Unknown	Acreage Remaining To Patent
U ₁	470.76 ³	Indiana Steel	1908	58.912	Gary Tube	366.274	45.574	-
U ₂	265.834 ⁴	Universal Portland Cement	2/8/26	33.74	NIPSCO	135.14	-	96.954
U ₃	215.312 ⁶	American Sheet & Tin Plate	6/7/26	64.864	Carnegie-Illinois Steel	150.448	-	0
U ₄	297.395 ³	Gary Tube	12/13/28	258.50	U.S. Steel	-	38.895	-
U ₅	64.864 ⁶	Carnegie-Illinois Steel	4/14/36	-	-	64.864	-	0
U ₆	417.71 ⁴	Carnegie Illinois Steel	10/16/39	9.415	NIPSCO	388.7917	-	19.503
U ₇	373.33 ³	U.S. Steel	1/9/57	-	-	84.499	-	288.831
Total	2105.205			425.431		1190.017	84.469	405.288

¹These are companies which, through name change, merger or dissolution, were predecessors of United States Steel. Therefore, the properties listed herein are under its ownership.

²The acreage transferred is to be subtracted from the acreage of authority to fill. The remaining acreage is the actual amount of submerged land that the original permit holder was responsible for filling, after the transfer of acreage from one permit holder to another.

3 East of Gary Harbor, the acreage of permitted fill is approximately 433 acres. This area is encompassed by three overlapping permits: the Indiana Steel permit of 1908, the Gary Tube permit of 1928 and the current U.S. Steel permit of 1957. Indiana Steel filled in 20.708 acres of this area, Gary Tube filled in approximately 39 acres and U.S. Steel has filled 84.499 acres. (The Gary Tube acreage was measured by use of a planimeter).

4 Both the Universal Portland Cement permit of 1926 and the Carnegie-Illinois Steel permit of 1939 involved the sale and transfer of land to the Northern Indiana Public Service Company. Universal Portland sold a 100-acre tract of land to NIPSCO which included 66.26 acres of previously filled land and 33.74 acres of submerged land yet to be filled. Carnegie-Illinois sold a 28.762 acre tract of land to NIPSCO which included 19.347 acres of previously filled land and 9.415 acres of submerged land yet to be filled.

5 The Universal Portland permit of 1926 was re-issued to Universal Atlas Cement Company on 11/4/43 when the name of the company was changed. Universal Atlas was authorized to fill the remaining 152.372 acres of the original permit.

6 The 1936 permit issued to Carnegie-Illinois resulted after American Sheet and Tin Plate Company deeded a parcel of their shoreline property - previously filled land - to said Carnegie-Illinois, which then applied to complete the filling originally authorized under the American Sheet and Tin Plate permit of 1926.

Land made between 1824 and 1907 as a result of natural accretion or man-made fills amounts to approximately 479 acres.

TABLE 13: YOUNGSTOWN SHEET AND TUBE COMPANY

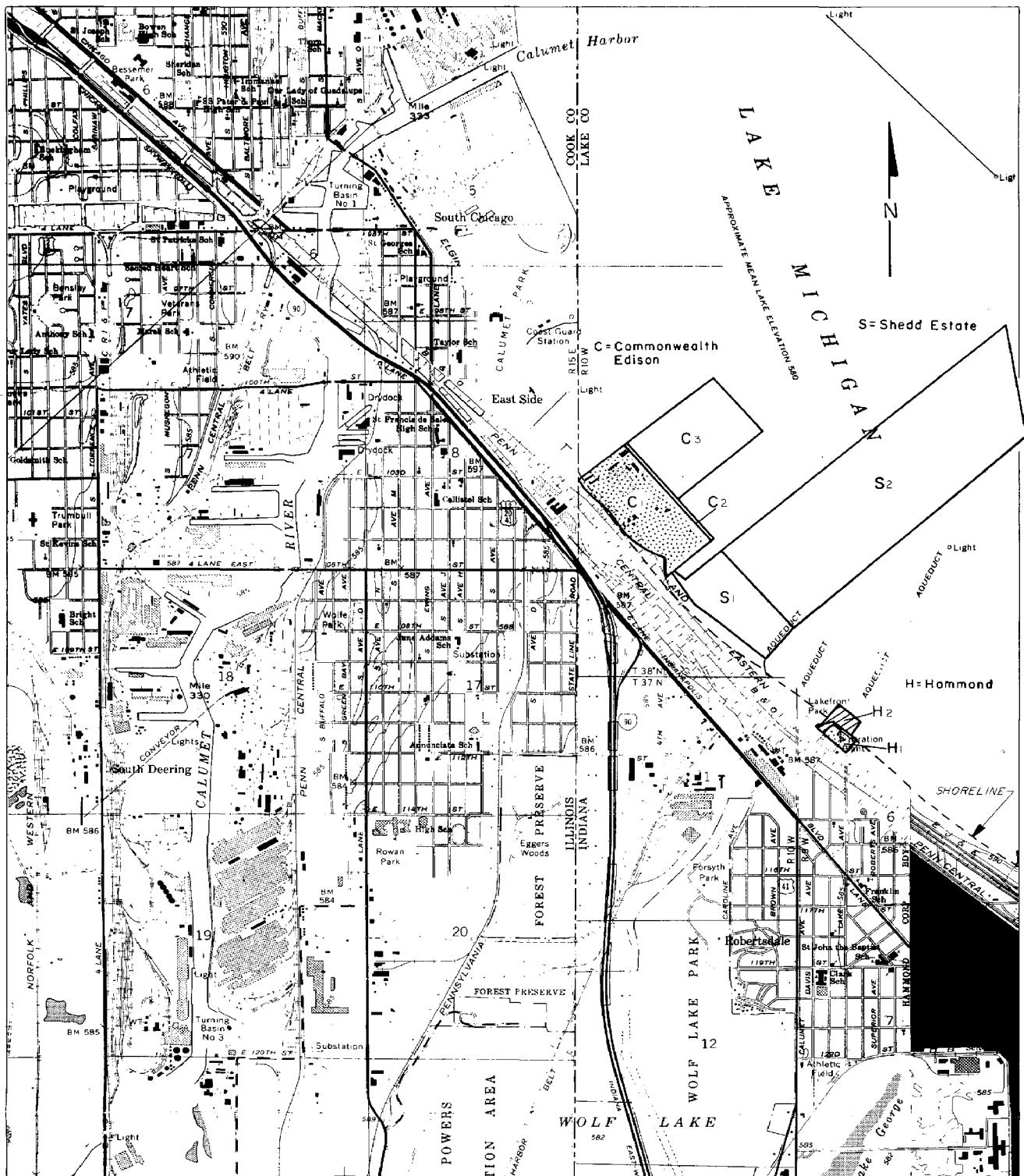
Map Reference	Acreage of Authority To Fill	Issued To	Date of Authority To Fill	Acreage Patented	Acreage Remaining To Patent
Y ₁	263.812 ¹	Mark Manufacturing	12/28/16	269.8365	7.8285
Y ₂	13.853 ²	Youngstown Sheet and Tube	10/06/26	-	-
Y ₃	145.379	-	9/16/42	121.0472	24.3318
Y ₄	882.37 ³	-	6/16/60	139.012	743.358
Y ₅	32.915	-	12/13/60	32.915	0
Y ₆	41.441	-	3/24/66	0	41.441
Total	1379.77			562.8107	816.9593

¹The permit was originally issued to Mark Manufacturing Company on 12/28/16 for 264.37 acres. The Steel and Tube Company of America became the successor in title to Mark in 1918, and Youngstown became the successor in title to Steel and Tube in 1923. The original permit was revised and re-issued on 3/17/26 because 0.558 acres were released back to the state, although this acreage later reverted to Youngstown under the 1960 Permit for 882.37 acres.

²The permit for 13.853 acres is added with the 1916 permit to achieve a total authorized fill acreage of 277.665 acres. Patents for filled land included in the 13.853 acre site are listed under the permit for 263.812 acres.

³The permit for 882.37 acres was restricted by a Department of the Army permit dated 10/4/61, which authorized only 344.13 acres to be filled at that site.

Land made between 1824 and 1907 as a result of natural accretion or man-made fills amounts to approximately 22 acres.



LEGEND

- X1 PERMIT AREAS
- X UNAUTHORIZED FILLED AREAS
- X FILLED & PATENTED AREAS
- X FILLED & UNPATENTED AREAS
- X UNFILLED & UNPATENTED AREAS
- X PATENT STATUS UNKNOWN
- PROPERTY LINE
- SHORELINE OF 1824-1849

SCALE 1:24,000
1 MILE
1000 2000 3000 4000 5000 6000 7000 FEET

W = Whiting

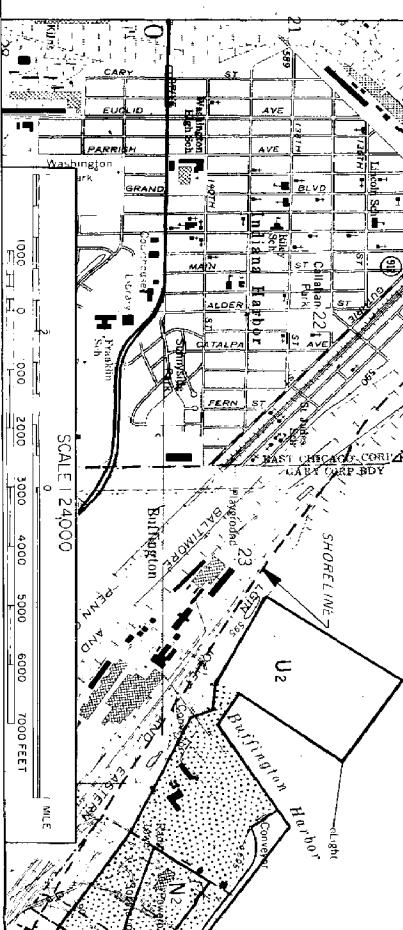
A=Amoco Oil Co.

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LEGEND

LEGEND

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	UNAUTHORIZED FILLED AREAS
	FILLED & PATENTED AREAS
	FILLED & UNPATENTED AREAS
	UNFILLED & UNPATENTED AREAS
	PATENT STATUS UNKNOWN
	PROPERTY LINE
-----	SHORELINE OF 1824 - 1849

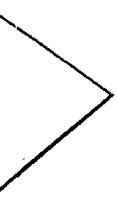


U=U.S. Steel Corp.

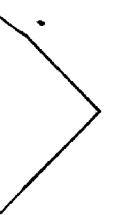
N = Northern Indiana
Public Service Co.

Inland Steel Co.

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Y = Youngstown Sheet & Tube Co.

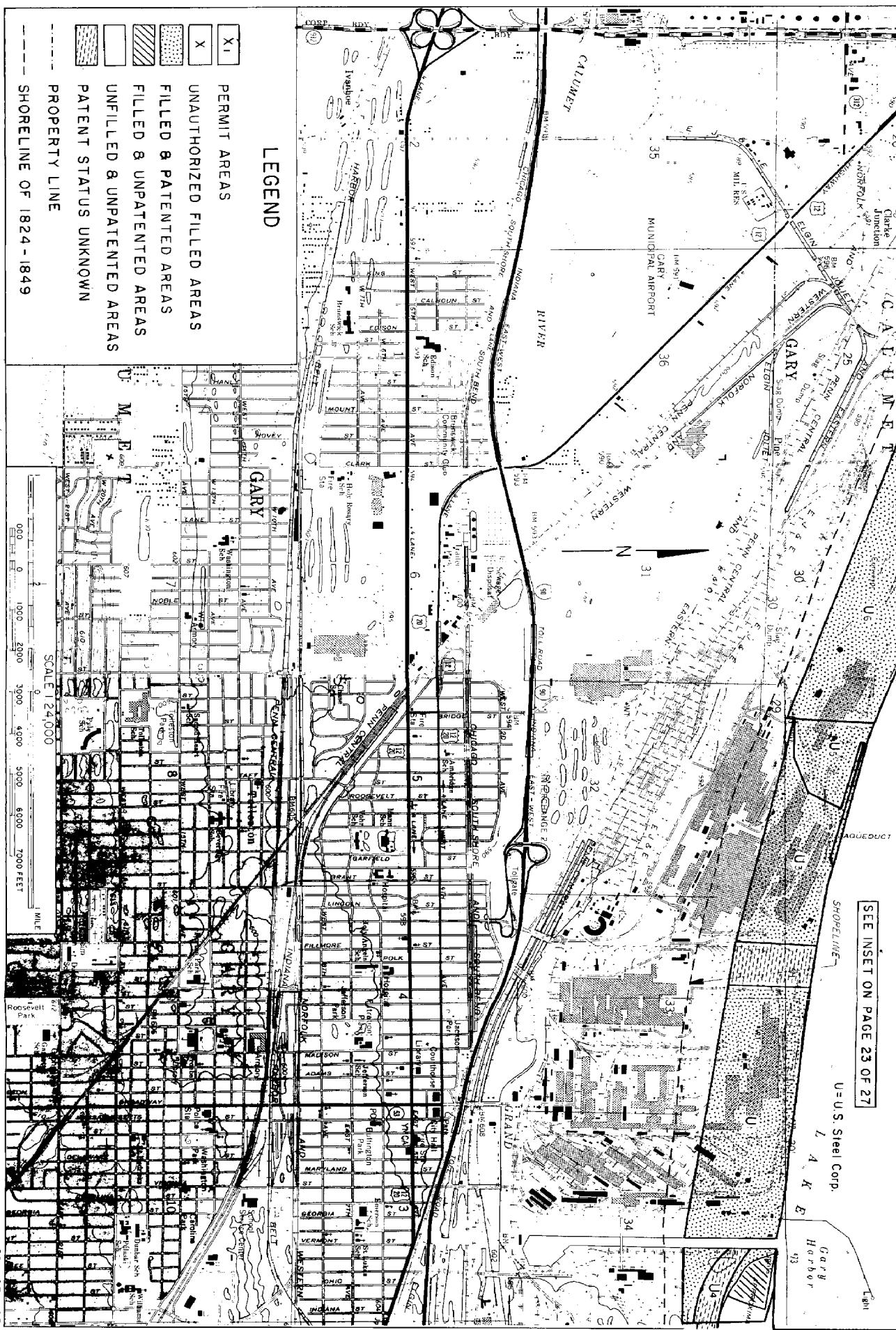


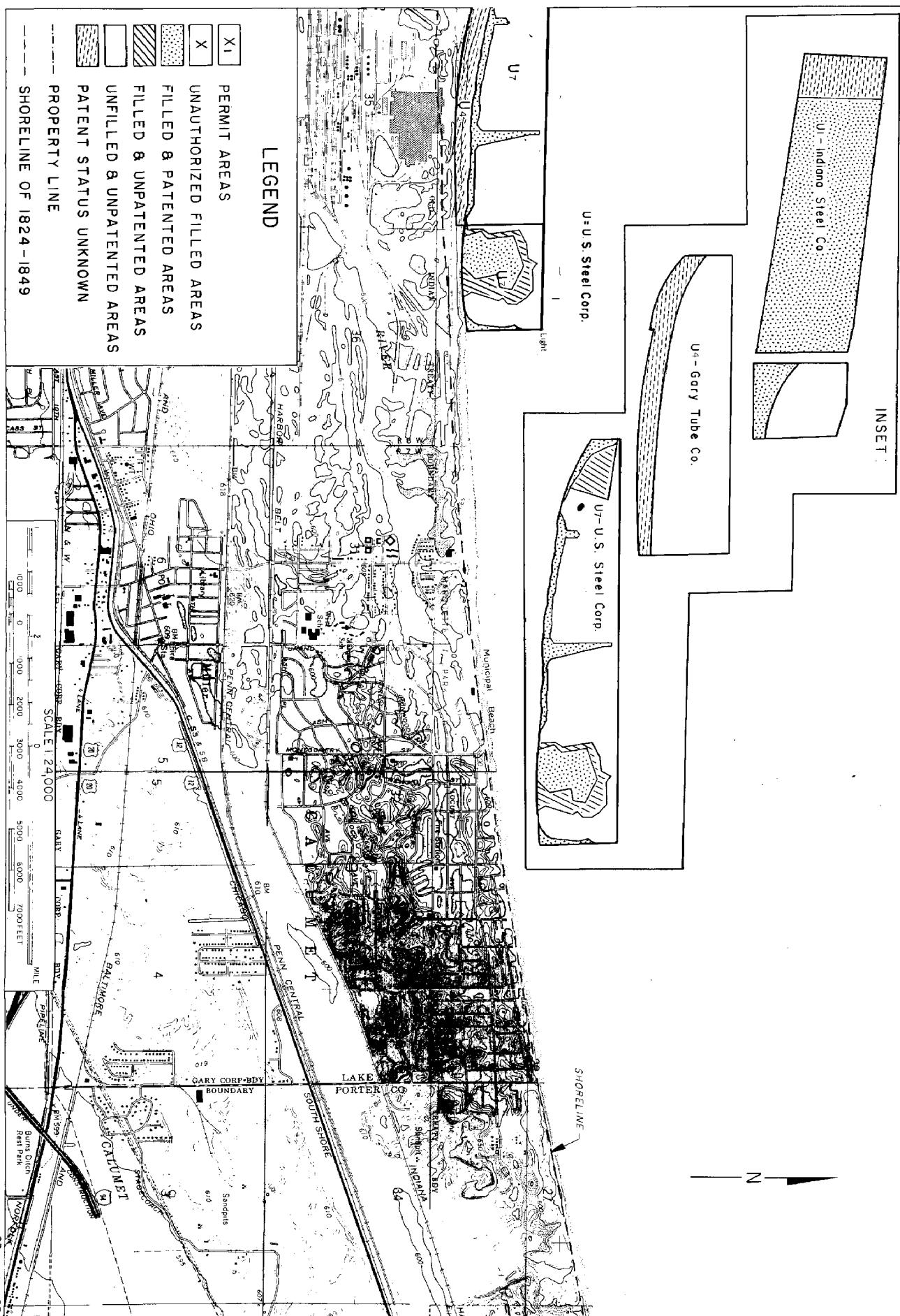
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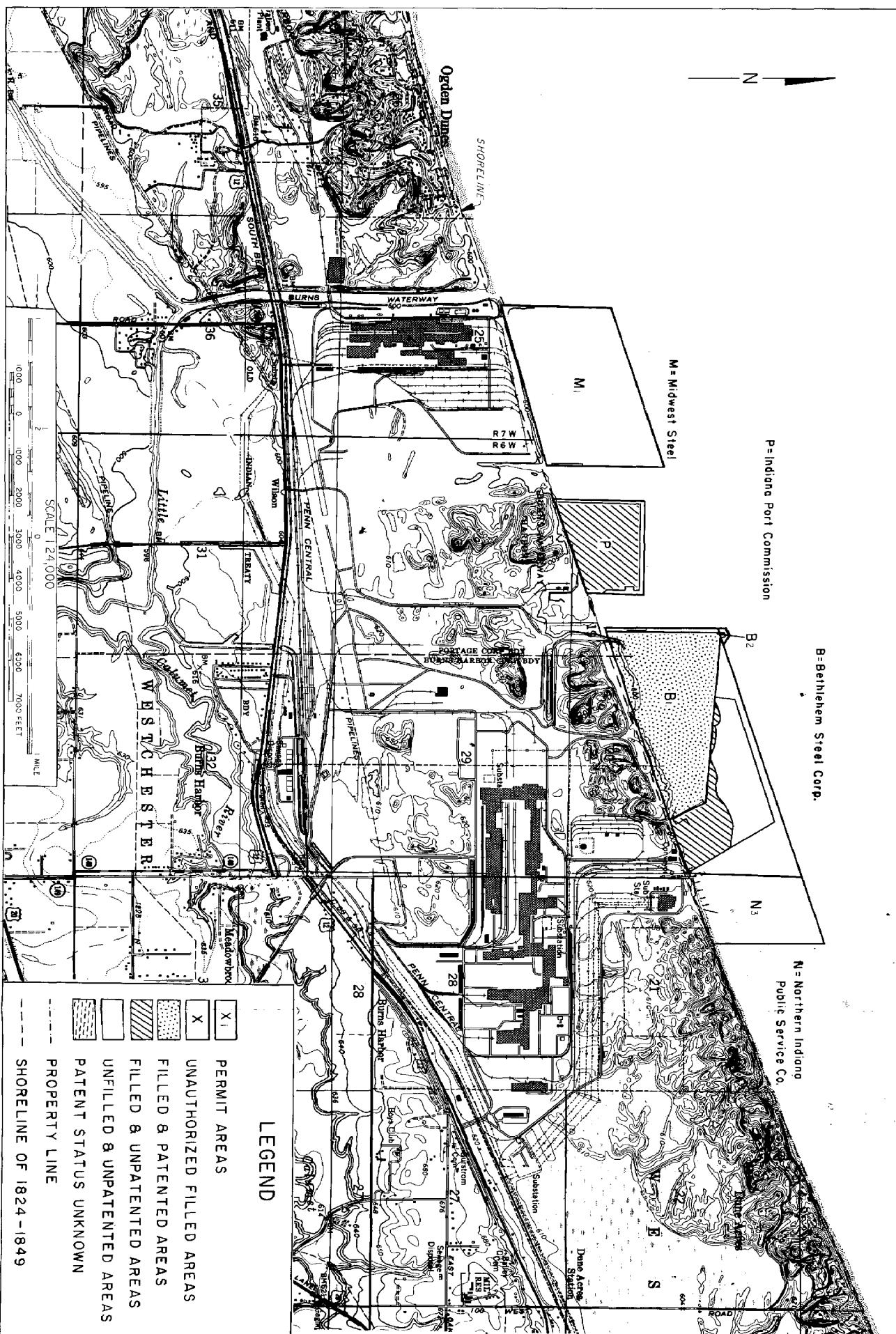
U.S. Steel Corp.

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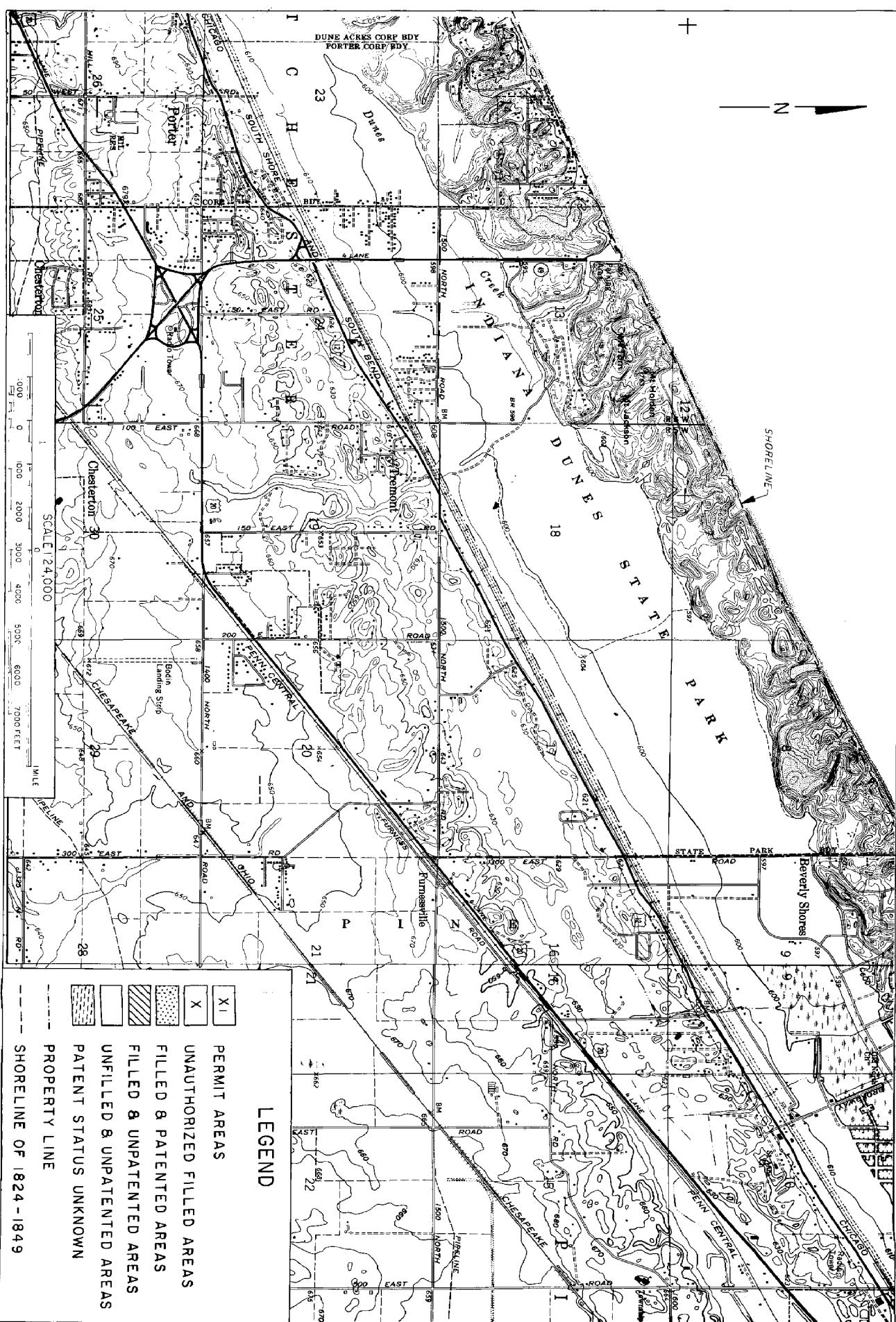
Indiana Port Commission

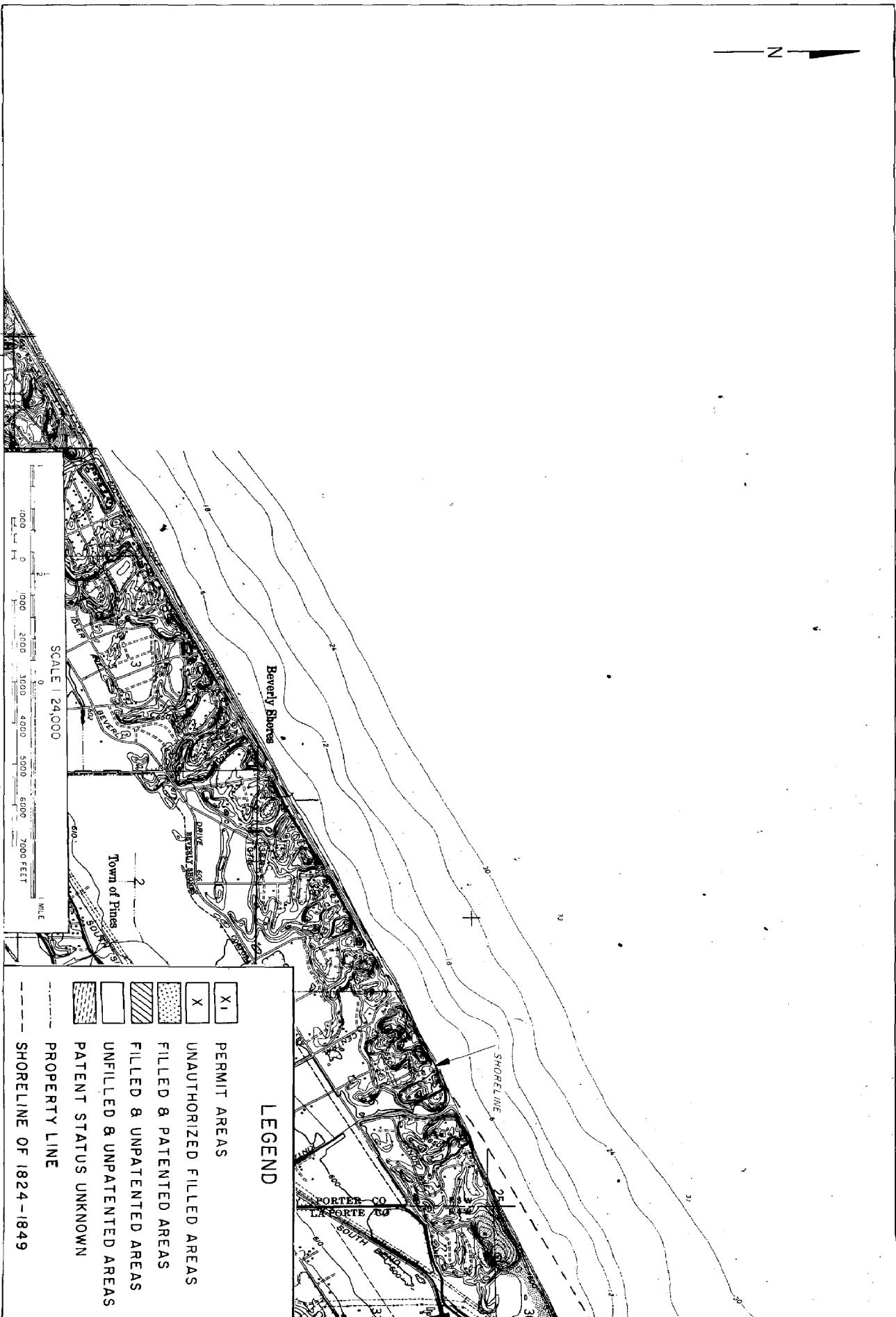
B=Bethlehem Steel Corp.

N = Northern Indiana
Public Service Co.

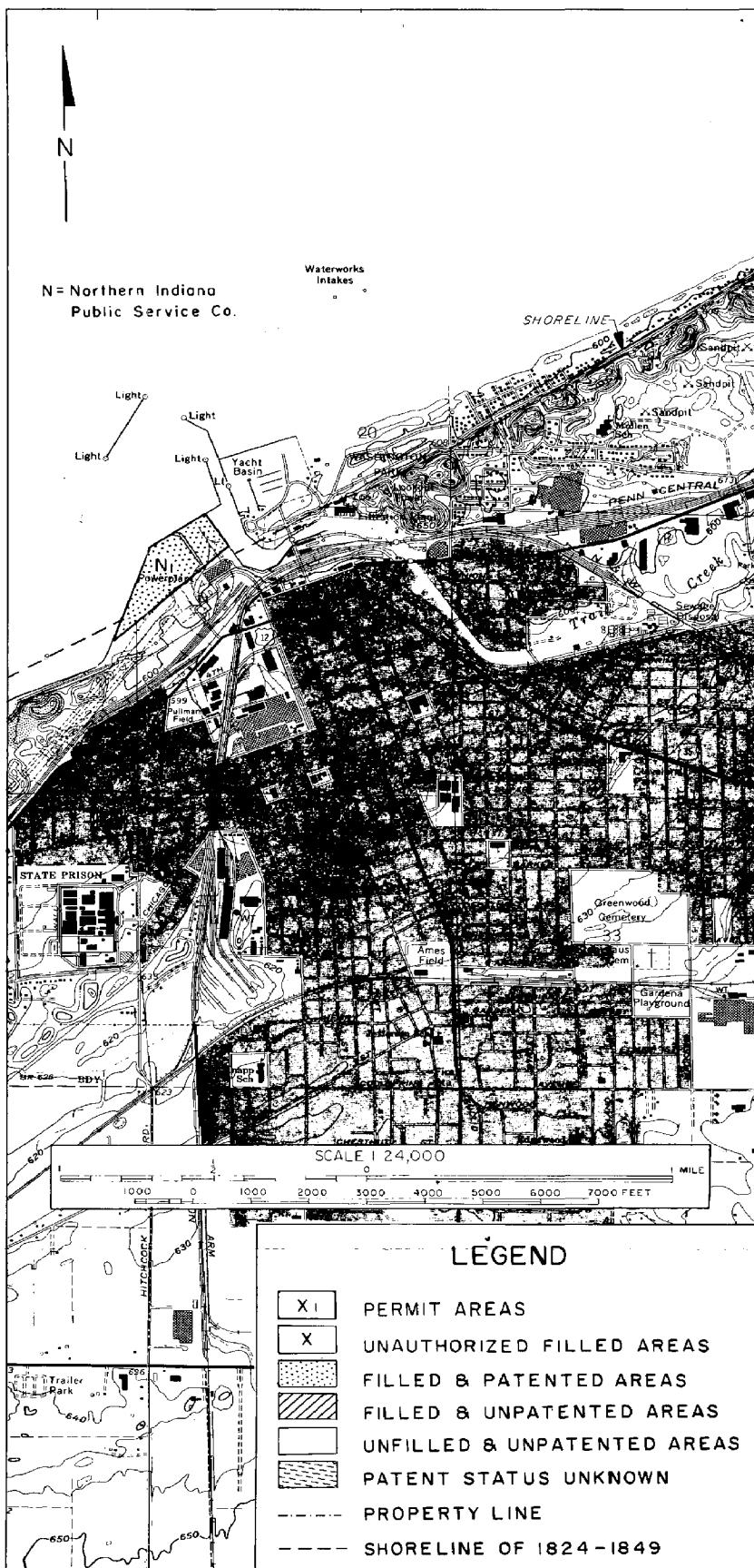
LEGEND

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|-----------------------------|--------------|
| X | PERMIT AREAS |
| UNAUTHORIZED FILLED AREAS | |
| FILLED & PATENTED AREAS | |
| FILLED & UNPATENTED AREAS | |
| UNFILLED & UNPATENTED AREAS | |
| PATENT STATUS UNKNOWN | |
| PROPERTY LINE | |
| SHORELINE OF 1824-1849 | |





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NOAA COASTAL SERVICES CENTER LIBRARY

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